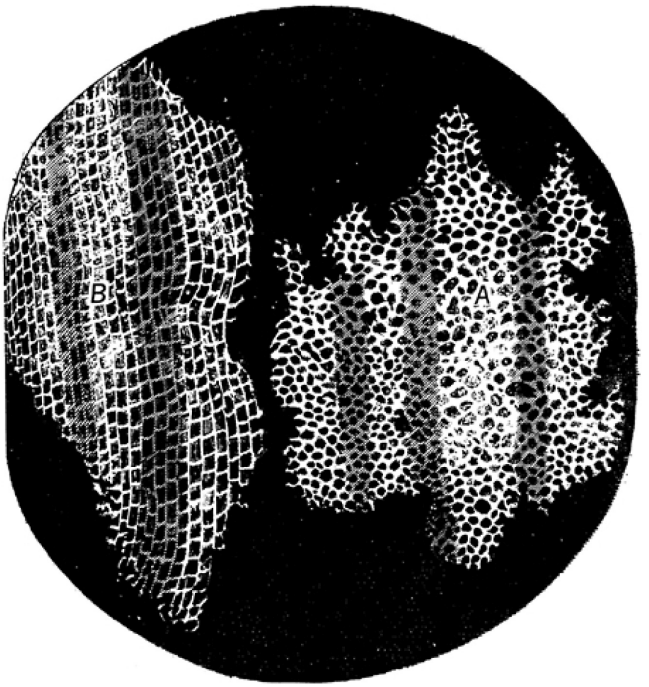

Figure 3.1. Robert Hooke's drawing of his observations of cork. He identified the small bounded areas as cells and noted in particular that the cells on the left side (labeled B) appeared to be boxes. Reproduced from R. Hooke (1665), *Micrographia: or some physiological descriptions of minute bodies made by magnifying glasses with observations and inquiries thereupon*. London: John Martin and James Allestry, Plate 11, Figure 1.

Sometimes these investigators may actually have been observing cells, but all too often what they observed were merely artifacts of their instruments.

Beginning in the late eighteenth century, a number of lens makers, including John Dollond, Joseph Lister, and Giovanni Amici, devised techniques using combinations of different glasses that greatly reduced chromatic aberration and also corrected for spherical aberrations. Microscopes using these *achromatic lenses* became available in the 1820s and 1830s.[5] (Despite their

but which vary but little in their shape and probably in their volume" (1823, translated in Harris, 1999, p. 176). He specified that they were 1/300 mm in diameter.

[5] Friedrich Gustav Jacob Henle, himself a major contributor to microscopical anatomy and histology, described the introduction of new microscopes to Müller's laboratory where he and Schwann were working: "Those were then happy days which the present generation might well envy us, when one saw the appearance of the first good microscopes from the firms of Ploessl at Vienna and from Pistor and Schlieck at Berlin, which we students bought with what money we were able to save" (Frédéricq, 1884, p. 13, as quoted in Hughes, 1959, p. 10).